



On Intellectualism in the Theory of Action

ABSTRACT: *This paper examines intellectualism in the theory of action. Philosophers use ‘intellectualism’ variously, but few question its application to views on which knowledge of facts—expressible in that-clauses—is basic for understanding other kinds of knowledge, reasons for action, and practical reasoning. More broadly, for intellectualists, theoretical knowledge is more basic than practical knowledge; action, at least if rational, is knowledge-guided, and just as beliefs based on reasoning constitute knowledge only if its essential premises constitute knowledge, actions based on practical reasoning are rational only if any essential premise in it is known. Two major intellectualist claims are that practical knowledge, as knowing how, is reducible to propositional knowledge, a kind of knowing that, and that reasons for action must be (propositionally) known by the agent. This paper critically explores both claims by offering a broad though partial conception of practical knowledge and a pluralistic view of reasons for action. The aim is to sketch conceptions of knowing how and knowing that, and of the relation between knowledge and action, that avoid intellectualism but also do justice to both the importance of the intellect for human action and the distinctive character of practical reason.*

KEYWORDS: intention, know-how, inference, knowledge, reasons for action

Few would doubt that knowledge is central in guiding human action. Knowledge provides crucial raw material for both theoretical and practical reasoning. Reasoning, in turn, provides premises that may yield new beliefs or fresh deeds and, quite independently of this, may later be invoked to support what is already believed or already done. But is *knowing* one’s premises, as opposed to justifiably believing them, *required* for practical reasoning or for rational action? And is propositional knowledge the basic kind of practical knowledge, or is knowing *how* another kind, not reducible to propositional knowledge? This paper addresses these questions about knowledge, reasoning, and action. It takes account of much in the voluminous literature on the topic but does not extensively examine any one segment of it. The aim is not a detailed engagement with all the prominent intellectualist arguments in the broad territory in question—that would be impossible even in a very long paper. The aim is wider and mainly positive. It is to frame a much more comprehensive conception of intellectualism than is usually addressed and, with that conception in

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mind, to provide partial accounts of some major concepts briefly, but in sufficient detail to do three things: to challenge intellectualism, to supply significant raw material for detailed non-intellectualist theory construction in the philosophy of action, and to propose (in outline) a non-intellectualist position in the general theory of rationality.

1. Practical Knowledge and Knowledge of the Practical

The most widely discussed case of practical knowledge is *knowing how*, as in knowing how to swim. But *knowing what to do*, such as what to do given a flood warning, is also practical knowledge. There are several similar cases of practical knowledge, such as *knowing one's way* home, *knowing when* to come in with the piano part in a concerto, and knowing *the habits* of another person. Perhaps in good part because, among knowledge locutions, 'knowing *that*' and its cognates dominate much ordinary parlance, we might wonder whether knowing *that* is more basic than knowing *how*. It is also true that knowing *how to A* (where *A*-ing is a kind of action) and knowing (propositionally) *how A-ing is done* are closely connected, partly because the former usually implies *some* grasp of the latter. But is know-how reducible to propositional practical knowledge or even entailed by it?¹

Given the common understanding of the terms of the discussion, *this* reduction will not work. Consider knowledge of the practical and take swimming as an example. Knowing propositions that, even in detail, indicate how this is done does not entail knowing how to swim. If this does not seem obvious, imagine observing swimmers carefully and writing down a good and highly detailed description of how swimming is done. Knowing the descriptive propositions in question surely does not entail knowing how to swim. Even the purported converse entailment from knowing *how* to knowing *that* is questionable: conceivably, one could come to know how to swim simply by imitation, or by certain brain manipulations, without knowing that it is done by . . . where the dots are replaced by a comprehensive description. Perhaps for agents with an adequate battery of descriptive concepts, the possibility of such cases of know-how entails an ability to *acquire* knowledge of how swimming is done, for instance by reflecting after the fact on how one does it, but this possibility does not show that knowing such propositions is an *element* in knowing *how*. That practical knowledge is made possible by actual practice shows a significant intellectual receptivity to acquiring knowledge of the practical, but it does not support the reduction of knowing *how* to knowing *that*.

A very different kind of case, concerning practical knowledge in the animal kingdom,² also casts doubt on whether knowing *how* entails a relevant kind of knowing *that*—an implication that is important for appraising intellectualism but

¹ Among the attempts to achieve a kind of reductive account is Stanley and Williamson (2001). For a detailed and plausible negative assessment of their project (with several points that support this paper), see Hornsby (2011).

² The example that follows is suggested by experiments described in Tolman's classic (1948). A 'cognitive map', in the sense illustrated in that paper and my text, may be taken to be mainly a set of beliefs about the world.

has received less philosophical attention than its converse. A rat confronted with a bar-pressing apparatus that dispenses food may be described as learning, through pressing the bar, and thus as knowing, *how* to get food. The rat may learn this using its right paw, but if that is tied, it will use the left. With both tied, it may use its nose. And suppose one could prevent that maneuver. The animal might use another part of its body. Must knowing *that* be involved, for instance knowing that the bar is to be pressed with *some* body part? Even if so, knowing that kind of proposition does not entail either knowing *which* body part to use or knowing how to press the bar.

Suppose, however, that the animal's know-how does imply having a true instrumental belief about how to get food and that having such a belief entails ability to *learn* how to get food from the device. Still, knowing something that enables one to learn how to *A* does not entail one's already knowing how to *A*. Granted, *if* one takes the specified instrumental belief to entail having the ability to learn how to achieve the wanted result, one might argue that the rat 'implicitly' knows how to get food from the device. But this way of defending the reduction of knowing *how* to knowing *that* has at least two drawbacks. First, it behaviorizes propositional instrumental belief in a way that apparently requires ascribing both concepts and beliefs to animals even when their behavior is explainable without positing them. Second, supposing rats may have concepts and even beliefs of the kind in question, it does not follow that having such beliefs entails *having* that know-how. It is possible, moreover, that any such instrumental beliefs are acquired by the animal only through the *exercise* of the ability. We may intelligibly and even plausibly suppose that by *doing* and by a kind of response generalization the animal can discover some instrumental connection between moving the bar and certain causative bodily motions. Whatever we say about such instrumental learning, the data apparently indicate (for certain animals at least) that performance precedes cognition in such cases and that the acquired know-how is the basis of whatever instrumental knowledge the animal gains and not equivalent to it. This is knowing by doing, not doing as manifesting prior knowing, or know-how as equivalent to propositional knowledge.³

Compare human agency. I know how to use a cook's knife and my know-how includes using it with my left hand though I have never done that. I believe, moreover, that I never even thought of doing this or formed a belief about it before writing this paper. It is true that in knowing how to use the knife and having the propositional knowledge I do, I was *positioned* to believe that I *can* do this. But must a right-hander actually have such a belief in order to know how to slice left-handedly? If not—as seems to be the case—then far from my knowing *how* being reducible to a kind of propositional knowledge, instances of the former are apparently often the basis for instances of the latter. Consider a similar case: knowing how to water a flower garden, where one is taught to do it with a hose and always waters with one but has a bucket available. One's know-how (say, as knowing how to get the right amount of water in the right places) likely includes

³ One may wonder here whether knowing *that* is reducible to knowing *how*, as argued by Hetherington (2006). Exploring this view is beyond the already wide scope of this paper. For a valuable survey of many of the issues, see Fantl (2016).

knowing how to water with a bucket if the hose fails, but it does not require and so does not depend on prior knowledge that a bucket may do the job of a hose.⁴

This is a good place to stress something implicit already. The plausibility of any reduction project can be enhanced by broadening the reducing concept(s) in a way that narrows the sense of difference between what is to be reduced and the presumptively more basic elements to which it is claimed to reduce. Consider, for instance, the thesis that ‘knowing how to do something is the same as knowing a fact’, where ‘facts are true propositions’ and when you learned how to swim ‘The fact you learned is the proposition that answers “How could you swim?”’⁵ One might initially think the reference is to the kind of fact illustrated by ‘You can swim by. . .’ where the dots stand for a detailed description of a set of movements sufficient for swimming. But I doubt that the view so understood has been seriously defended, and the intent here is to represent ‘Knowing how . . . [as] first-person knowledge. It is knowledge about oneself, or knowledge *de se*’ (Stanley, 2011: 98). Is this true? Granted, in some cases *de se* knowledge would entail knowing how to swim. Suppose that in exercising swimming ability in a favorite pond, I know that *I myself* am swimming. If I have this particular *de se* knowledge at the time, then I know how to swim. But such knowledge is not a basis for reduction of knowing how to swim to knowing that some fact obtains. The entailments hold on the basis of the swimming; it is only because I realize I am swimming that I know the fact that *this* is how I do it.

Perhaps the spirit of the proposal is partly captured by the idea that if one knows how to *A*, then one (agentially) *knows A-ing* in a referential sense, as where a piano student might be said to know a Bach Invention. That seems quite plausible for one use of ‘knows’, one apparently implying knowledge of some facts. I suggest, however, that if this is how the reduction is understood, then the *de re* knowledge of (say) swimming is doing the reductive work, even if the agent must have *de se* knowledge of swimming as well. To see this kind of case for reducing knowing how to knowing that, we might take the relevant knowledge of propositions—a kind of intellectual knowledge—to include such things as my knowing that the way I swim is *like this*, something I might say to a learner as I demonstrate, by swimming, what I refer to. Saying this would, in the context of demonstration, answer ‘How could you swim?’ But here, to a *de se* self-reference we have added a *de re* reference to actual swimming. If this is what the reduction comes to, then its success (if it does succeed) is much diminished. Insofar as knowing that one swims ‘like this’, where one can (normally) demonstrate swimming at will, is taken to be knowing *that*, it is not ‘intellectual’ propositional knowledge. It does, to be sure, entail knowing how,⁶ but the order of clarification is reversed: far from knowing *how* reducing to a kind

4 My points in this paragraph and indeed others in this paper are supported by the case made by Carter and Pritchard for the view that, in relation to epistemic luck, knowing *how* and knowing *that* come apart in a way they should not on the reductionist view; see Carter and Pritchard (2015: 449). For a contrasting view defending an unorthodox intellectualism against Gettier-style counterexamples, see Cath (2015).

5 Stanley (2011: vii). I find it unclear what to make of ‘How could you?’ here versus the more natural ‘How would you?’ and ‘How do you?’ that normally presuppose your knowing how.

6 Compare Stalnaker: “The thesis [that “knowing how is a species of knowing that”], as I think it should be understood, would be more accurately labeled “anti-intellectualism.” See his (2012).

of knowing *that*, a kind of knowing *that*—a practical *de re* kind that does not seem intellectual or even propositional in a common sense—presupposes knowing *how*.

It is worth noting that we could substitute ‘like *that*’, applied to *others*’ swimming, for ‘like *this*’. But in that case, ability to swim would not be implied by the indexical knowledge. Ability to identify a kind of activity ostensively has practical importance, but it does not entail knowing how to do the relevant kind of thing. Suppose I see a properly executed dive. If, from observation, I know (the fact) that the way I can do such a dive is like *that*, or by my doing *that*, I may well be in a position to *learn* how to do such a dive, but it does not follow that I know how to do one.⁷

2. Virtual Knowledge as a Neglected Category

Our examples should make clear that at least for normal adult human agents, even if knowing how to *A* implies a strong disposition to believe many propositions about how *A*-ing is done, there is no necessary doxastic element, hence the disposition need not constitute propositional knowledge (as entailing actual belief). Here I presuppose a widely accepted distinction between actual dispositional (as opposed to occurrent) beliefs and dispositions to form them—which may of course be based on grounds such that the beliefs formed are characteristically knowledge. (Development and defense of the distinction are provided in Audi 1994). Suppose, then, that the reductivist view that know-how is a kind of propositional knowledge is correct in one important claim: that in knowing how to *A*, agents in some way possess comprehensive information about how *A*-ing is done. That information need not all reside in the agent’s *knowledge* as opposed to residing in beliefs and other cognitive dispositional elements. If so, then even if the claim captures much of what a reductivist would seek to show, it would be quite weak. Knowing *how* (for normal adult human agents) could be equivalent to having information in the way one does in having a disposition to *acquire*, at least on suitable reflection, detailed propositional knowledge of how *A*-ing is done. It would not follow that knowing *how* is equivalent to that knowledge itself.

These points suggest a weaker, less intellectualist position. Might knowing how to *A* be equivalent to this: *either* knowing an appropriate set of propositions about *A*-ing, say, about how it is done, *or virtually knowing* this, in the sense that one is disposed to *form* true beliefs of the relevant propositions, where each would (normally) be knowledge? Recall the case of knowing a Bach Invention. Such practical knowledge implies a readiness to come to know much that one need never believe—for instance, that the two hands are never more than six octaves apart or playing more than twelve notes. One could say that the pianist ‘implicitly

⁷ The last three paragraphs concerning what might be called a linguistic approach to the intellectualist view of knowing *how* do not take full account of the many valuable data *Know-How* presents, but I doubt that anything in it sustains the thesis with which Stanley opens, as opposed to a number of points independent of it concerning the connection between knowledge of propositions and practical abilities. A less sympathetic appraisal of the intellectualist view of knowing *how* is argued by Hornsby (2011). In her more recent work (2017) Hornsby argues plausibly and in great detail against Stanley’s case for intellectualism from linguistic evidence.

knows' this, but this move would force us either to give up the plausible view that propositional knowledge entails belief or to attribute to ordinary agents myriad beliefs of numerous even more far-fetched propositions.⁸ Similarly, if someone asks me how to swim, I will quickly form beliefs many of which *will* be knowledge—arguably, enough of them to constitute propositional knowledge of a kind that might manifest knowing how to *A*. It is doubtful, however, that this knowledge or the disposition to acquire it *suffices* to yield such know-how. What we have seen points in the other direction: know-how commonly embodies much virtual knowledge and thereby much raw material for intellectual knowledge of the kind that makes reduction of knowing *how* to knowing *that* seem promising.

We may, then, accept something an intellectualist approach puts in high relief. One might put it like this: Given that the question how to do something is answerable by citing facts, the very possibility of asking how to do something may seem to presuppose that a correct answer can indicate propositional knowledge constitutive of the know-how. The possibility does not in fact presuppose this, but only the unsurprising point that in many cases a good description of an action or activity can immediately *produce* knowing how to perform it. The point is significant, but does not entail that knowing how is constituted by or even equivalent to knowledge of the descriptive propositions in question.

This sketch of a route to an equivalence thesis illustrates the danger of backing into a view on how much we know by assimilating actual knowledge to virtual knowledge. Here the temptation is to exaggerate how much propositional knowledge is required by knowing *how* by assuming that the agent knows all that one *would* know on considering how one *A*-s *and*, with that in view, forms true beliefs that describe *A*-ing in a kind of 'practical detail', a kind readily applicable to teaching someone how to perform the action. In any case, there is no reason to take the agent to need such knowledge in order to know how to *A*, whether as a constitutive condition or as a precondition. Even if there should be the kind of strong equivalence required to reduce knowing *how* to some kind of knowing *that*, the *basis* of such an equivalence is apparently a kind of agential *de re*, objectual knowledge of the activity in question. If so, then far from being reducible to any kind of knowing *that*, knowing *how* is, at least in many cases, more basic and explains why we know as much as we do, and have as much potential, virtual knowledge as we do, about how the things we can do are done.⁹ The intellectualism of propositional reduction seems lost in the indefinitely rich concrete details of doing,

⁸ This is argued in detail by Audi (1994). That paper also indicates how the idea of implicit belief invites the view that we believe, at least implicitly, all the propositions comprehensible to us that are obviously entailed by what we 'explicitly believe'. This would of course hold for any intellectually perfect being.

⁹ Here one might think of the 'objectual intellectualism' proposed by Bengson and Moffett (2011). They deny that knowing *how* reduces to knowing *that* but argue that 'to know how to act is to understand a way of so acting, where such understanding involves grasping a (possibly implicit) conception that is poised to guide the successful intentional performance of such an act—hence, to possess a cognitive state with a distinctively practical character' (2011: 161). Clearly, one does not know how to *A* without some conception of how to; the question is how 'cognitive' the 'possibly implicit' conception must be. Their paper does not address this in a way that leaves me confident that their view should be considered genuinely intellectualist.

recalling, envisaging, or other elements closer to doing, perceiving, or imagining than to propositional knowing.

3. The Place of Knowledge in Practical Reasoning

Intellectualism in the practical domain goes far beyond the view that knowing *how* reduces to (or is at least equivalent to) a kind of knowing *that*. Another question in this domain is whether knowledge is required for practical reasoning, at least where that reasoning shows an action to be rational. The view that knowledge is required in such cases constitutes another aspect of intellectualism regarding the practical domain.¹⁰ Broadly speaking, the idea is that an intellectual success is required for even the limited practical success manifested by satisfactory practical reasoning. Perhaps one source of the attractiveness of this view is the idea that reasons are facts (this view has long been held and defended by Derek Parfit [2011: 31–38] and others). For proponents of that view, reasons will be expressible by a *that*-clause and in such a way that proponents will likely think practical reasoning has some defect if a crucial premise is either false or not known—in either case manifesting some kind of intellectual failure. But quite apart from whether when reasons are expressible in *that*-clauses, they constitute knowledge, there is good ground for denying that reasons are *necessarily* facts. Two considerations will suffice. Both are broadly epistemological. One concerns the kind of evidence required for knowledge as opposed to what is needed for justified action. The second concerns whether knowing a proposition is necessary for its constituting a reason for action.

First, consider a well-evidenced belief that apparently does not constitute knowledge. For many epistemologists, even if one holds just one ticket in a fair lottery with a million tickets, one does not know one will lose. Even those who contest this may accept the following for the case of ten thousand tickets, where one's chance of winning is much greater. Suppose I am offered a fine car for half its value. If I can afford it *only* if I win the lottery and I have a justified belief that my chance is very slight, may I not reason: I am not going to win, and without a win, refusing is my only sensible option, so I should refuse? Granted, I might also reason from my chance of winning being only 1/10,000—something I know—to the same conclusion. But suppose I do not work with numerical probabilities and simply have the categorical belief that I will not win, whose truth is only highly probable (as I may virtually know or even realize). I need not also believe (even if on reflection I would believe) that I do not *know* I will lose. My not knowing an important premise surely does not vitiate my reasoning or render irrational the refusal based on it, even if the (accepted) *thought* that I do not know might do so.

Lottery cases are not the only challenge to the intellectualist view in question. Imagine reliable testimony given in such a way that the recipient has good justification but not knowledge regarding what is said. This might occur *either* where the testifier has no evidence but is highly credible and (luckily) correct or

¹⁰ Cf. Stanley's defense of the view that 'an action is done for a proper reason only if it is knowledge' (2011: 175). His defense of this concerns chiefly skilled action, for which it seems more plausible.

even where the testifier is in error. Can this response to testimony not also lead to rationally adequate practical reasoning? To be sure, where we cite a proposition as our reason for doing something and are *warned* that that we do not know it, we should see the relevance of this reproach. But the relevance of such a criticism does not entail the intellectualist view that *only* propositions an agent knows are appropriate for good practical reasoning. For instance, citing a proposition one is amply justified in believing is normally an adequate response to a challenge to a premise in practical reasoning (where the proposition clearly entails that premise) even if that justification does not suffice for knowledge.

A third kind of case is easily overlooked by those who think of reasons as facts or indeed as anything (such as a true proposition or correct judgment) expressible by a truth-apt *that*-clause. In the case of actions, this view of reasons is too narrow, and here I call attention to a neglected mode of reason-ascription.¹¹ For any action performed for a reason, there is an infinitival expression of the reason. Roughly, where one *A*-s for a reason—schematically, in order to bring about a state of affairs, *R*—one's reason can be specified not only as *that A-ing* will bring about *R* but also as (in order) *to* bring about *R* (or the corresponding state of affairs, say, revenge). The content of the infinitive clause is not plausibly taken to be a fact, nor need it be a fact that the goal in question is realizable by *A-ing*. My purposes do not require determining whether one or the other reason-expressing locution is more basic (though that is an important question well worth pursuing) or even whether *all* reasons for action are infinitivally expressible. The point is that philosophers should not claim that reasons are facts without showing (as they surely have not) either that there is something wrong with taking purposive infinitives to express reasons quite adequately or that such infinitive ascriptions of reasons reduce to factive ascriptions of them.

It is also instructive to consider the *kinds* of instrumental facts that can constitute (normative) reasons for action. Suppose I know that donating money to a cause would advance it. This knowledge can motivate action, and believing the proposition can be a motivational reason for action. But suppose there is no value at all in advancing that cause (say, because it is thoroughly bad). Then the knowledge does not provide a reason of the normative kind in question. Granting, then, that some instrumental facts, say, that an action will save a child's life, provide normative reasons for action, it does not follow that they can do so independently of an apparently different kind of consideration.¹² If there is any priority relation between normative reasons expressible with true instrumental *that*-clauses and normative reasons expressible in a value-indicative infinitive clause, it would appear to be in favor of the latter.

¹¹ One indication of this neglect is that in a paper devoted to answering the question whether (motivating) reasons for action are facts known to the agent, there is simply no mention of infinitival expressions of reasons or the question whether reasons for action must be considered facts; see Locke (2015).

¹² Granted, infinitivally expressed reasons may constitute normative reasons only if it is a normative fact that the relevant state of affairs is or would be in some way good, but this is a different kind of fact from the instrumental kind in question. Moreover, even if there *being* a reason for us to bring about a state of affairs depends on that fact that it is (normatively) good, it is far from clear that our *having* a normative reason to bring it about entails knowing that it is good.

What important conclusions follow from the proposed pluralistic view of reasons? One is that there are cases of good practical reasoning whose premises are justifiably believed but not known. It is true and important that at least in these cases knowledge is superior to mere true belief or even justified true belief not constituting knowledge. But explaining that does not require holding the factivity view of reasons. Another conclusion we may draw here is that rejecting the factivity view is neutral regarding whether knowledge is the norm of assertion. It may be true that if I *assert* a premise in practical reasoning, I am subject to criticism if I do not know that premise to be true. But we do not assert all the premises of our reasoning. Some premises are tacit. Moreover, even practical reasoning as such may be hypothetical. One may suppose certain things and infer consequences, even if one neither knows nor even believes the suppositions. (If I apply for an extension in filing tax forms, I may call attention to my return. If I do that, I am more likely to be audited, which would be annoying at best.)

Whether or not (propositional) reasons one has for action (or belief for that matter) are facts, practical reasoning remains subject to objective intellectual standards. It has an inference—a practical one in some sense—as an element and may be valid or invalid. It also has a cognitive element, whose content is broadly instrumental, even if that content need not be a fact or represent knowledge. But we must not allow either the importance of cognition in practical reasoning or the importance of practical reasoning itself in understanding action to move us toward another kind of intellectualism in the theory of action: *inferentialism*—the view that every intentional action is based on practical reasoning. Inferentialism is intellectualist in implying that an intellectual performance is required for full-blooded action. More broadly still, an underlying idea here might be that the will moves us to intentional action only given the guidance of reasoning. This view yields too narrow an understanding of action, even rational action.

We can grant, however, something that may partly motivate inferentialism: a *correspondence thesis*—the view that for every intentional action there is a corresponding piece of practical reasoning whose premises express the relevant aim and an appropriate instrumental belief—while denying inferentialism, which entails that a process (however short) of reasoning, underlies every intentional action. Not every *action for a reason*—such as quickly placing a lid on a pan with burning oil—is a *reasoned action*, that is, based on a process of reasoning. These cautionary points are not central to this paper and will not be further argued here, but they indicate how we may grant to intellectualism that, *structurally*, action may be reason-based, with cognition and, in that weak sense, ‘intellect’, playing a role, without identifying reasons for action with facts or taking all intentional action to be based on practical reasoning (Audi [2006] provides a full-scale discussion of practical reasoning, inference as understood in relation to it, and related criticism of inferentialism). Being *reason-based*, then, does not entail being *reasoning-based*. The exercise of agency apparently does require both guidance by belief and sufficient rational structure for the content of belief and motivation to play a rationalizing role in rendering actions explainable. But the kind of intellectualism that requires either knowledge status for the action-guiding beliefs that express reasons (a kind of epistemic intellectualism), or an inferential process

as mediating between action-guiding beliefs and action (a kind of psychological intellectualism), is too narrow.

4. Reasoning and Rational Action

We have seen that practical reasoning is much less epistemically constrained than it might seem to be. I have shown how we can resist the temptation to parley conditions for ideal reasoning into conditions for reasoning *simpliciter*, for instance by allowing that instrumental beliefs underlying rational action need not be true or, if true, knowledge. I have also maintained that intentional action need not emerge from reasoning at all. From here it is a short step to the conclusion that not all rational action need emerge from it either. This calls for explanation.

Suppose that, as I suggest, we distinguish between reasoned action and action for a reason, which does not entail the former. Add to this that an action may be performed for *the same reason* whether or not that reason is expressed in a piece of *reasoning* conceived (appropriately) as some kind of inferential process. We can then maintain the plausible view that the rationality of an action is determined by the character of the reason(s) it is based on and simply grant that this basis relation need not be mediated by reasoning—*ratiocinatively instantiated*, we might say. Contrary to an intellectualist conception, the support provided to an action by reasons favoring it does not depend on those reasons yielding it by any particular process, much less one that requires mental activity distinct from whatever mental events (say, perceptual ones) guide the action itself. In very global terms, one could say that although the mind is required to ground rational action, the intellect is not.

Whatever the ultimate verdict on whether action for a reason must be based on reasoning (and I do not claim that this paper by itself fully justifies the more economical view favored here), we should countenance information-processing that does not constitute reasoning. Consider a readily generalizable example. Regarding the kind of information-processing that may be outside consciousness, a clear case is facial recognition. We cannot recognize a face we know when too much of it is covered. We need a certain (situationally variable) minimum of visual information, such as adequate light. But even if facial recognition normally requires much visual information, it is characteristically neither inferential nor a result of reasoning—not, anyway, if reasoning is propositionally constituted and requires occurrent thought. For much facial recognition, no such process is needed. It *can* be: where, for instance, there is a distinctive tattoo from whose presence one must infer the person's identity in order to know it. But, however much the brain does, facial recognition is typically immediate and apparently unreflectively automatic.

Compare catching a ball that the wind is blowing to our right. Must we do a quick unconscious calculation? If the know-how is ingrained, the visual system can project location with no accompanying intellectual operations.¹³ Even if the system

¹³ On some views, inference may not be an intellectual process at all. For Mitchell Green, even perception may be inferential though 'The inferences I speak of here will not in general consist in the derivation of one proposition from a set of others . . . they will more commonly take the form of a positioning of an object in

provides projective information, must every propositional piece of information that can guide action do so via a propositional tokening in ‘unconsciousness’? No such intellectualist view is forced on us by the need to account for the relevant concepts.

Might we not consider other cases in the practical realm analogous? There appear to be rational actions, as there may be rational beliefs, that (perhaps in some Bayesian way) are guided by information, yet are not based on a reason. I have not implied precisely that conclusion regarding action, but it may be true, depending on whether every rational action must be intentional. That rational actions must be based on reasons in the way characteristic of what we do intentionally is a view one would expect in an intellectualist perspective on action. Let us explore the view.

5. The Scope of Rational Action

We have seen good grounds to reject the intellectualist view that rational action must be based on reasoning and the associated view that *good* reasoning can have only premises that constitute knowledge. A weaker, perhaps more plausible thesis suggested by these views is that rational action must be intentional. In exploring this, let us make the plausible and widely accepted assumption that intentional action is equivalent to action for a reason in the sense that it has a description under which it is explainable by appeal to intentionalistic elements, presumably at least one belief and at least one desire, that instrumentally connect it with the content of the description. Few would deny that this view holds for at least the vast majority of actions plausibly considered intentional—a weaker assumption sufficient for our purposes here. Take a case of appointing *X* to a post. The agent wants something, *G*, and believes something to the effect that appointing *X* will realize *G*. Appointing *X* for this (compound) reason might well be rational. But can an action also have a description under which it is *not* performed for a reason, yet rational?

Suppose I realize (and regret) that appointing *X* will offend *Y*. Under the description, *offending Y*, I have no reason to appoint *X*; indeed, I have a reason to avoid offending *Y* even if it is an inevitable consequence of the appointment. Suppose it is inevitable. Surely, if appointing *X* is rational and sufficiently valuable, then offending *Y* may also be rational—*derivatively rational*. It could even be a reasonable collateral cost to bear. These terms contrast offending *Y* with actions that are either instrumentally rational or inherently rational, say, as enjoyable. My offending *Y* is of course only *prima facie* (and defeasibly) rational; it would not be rational overall if it would obviously cause a disaster, but that is a different case.

One could say that there is an *oblique reason* or a *consequential reason* to offend the bypassed candidate (or at least not to avoid the offense by failing to make the intended nomination). But the offending is not done for a reason. One might say

egocentric space, an attribution of absolute and relative trajectories, and so forth’ (2010: 48–49). If inference is taken so generally and includes information processing the brain can do without agential consciousness of any element in the process, proponents of this inferentialist picture may hold that the catcher in some way infers the position of the ball as it approaches the awaiting hands. Cf. Andy Clark (2014: ch 11, esp. 229–37) who explicates the ‘perception-as-inference’ view of Richard Gregory, emphasizing ‘predictive processing’ as ‘essentially a process of bottom-up feature detection’.

that it is *indirectly based* on a reason, but not performed *for* one. It is foreseen as a consequence of what is intentional. Moreover, unlike accidentally spilling a drink, it is not *unintentional*. Should we say that similarly, it is not, in the imagined case, irrational but merely non-rational rather than rational? That would not do justice to the extent to which it is *supported by reasons*, such as the necessity of nominating X as the best candidate. The case shows, then (as do other kinds of cases), that reasons can support an action without motivating it. The agent neither aims at it nor even wants it as a means to something further. It may be merely acquiesced in because it results from something that is wanted.

Another category should be considered here: mere doings, as distinct from non-intentional actions that are performed knowingly but not intentionally. Can these be rational? Consider moving one's feet during a long flight, where this is simply a natural response to being confined as opposed to being aimed at getting comfortable. The distinction between such doings and mere bodily movements is not sharp. Presumably, if there is no description under which the doing is intentional, it is not action, hence is not minimally rational action. Still, the doing is both voluntary and not *irrational*, and the doing-*type* is rational *for* the agent at the time. Thus, intentionally making the same movements might be a good idea and likely if one thinks of making them. This is one reason why if the doing is neither unintentional nor lacking some connection with the agent's interests, there is some pull toward calling it rational even if it is not intentional under any description.

There is yet another behavioral category important for understanding rational behavior: a kind of action, or at least doing, that is automatic and might be considered *cue-driven*. Consider stepping over a stone on a hike in the forest. If this is action, it might be considered intentionally avoiding an obstacle and could be deliberate if one is just learning to navigate such unfamiliar terrain. But suppose one has learned to step over obstacles and this becomes automatic—part of knowing how to hike in rough terrain. Might there be a non-doxastic instrumental connection? Perhaps one's background knowledge of how to hike in such terrain, together with seeing the stone, yields a sense of the need to step over it. The question is empirical, but the relevant concepts at least make room for the idea that an action may be cue-driven, and in that sense information-guided by perception, rather than belief-guided by a focal instrumental belief—and in that sense guided by knowledge or some other intellectual element describing the consequences of one's action.

Granted, in such cases there is likely a background of experience and indeed of instrumental beliefs of the right kind. A hike would normally be belief-guided in an overall way, such that the direction of the hiker takes is determined by beliefs about the whereabouts of a friend. But a cue may trigger in the hiker a kind of action based on, for example, perception, without doing so by way of a belief to the effect that the thing constituting the cue (say) indicates what one should do. Background experiences and standing beliefs may pave the way for a cue to govern or at least trigger the action; they need not yield an instrumental belief such as that one must step over the stone to avoid tripping. The automatic action here is more like catching a ball in the wind than like counting cash for groceries. Note, too, that automatic doings that manifest knowing *how* can be rational—as well as, say, deft or clumsy, fast or slow, novel or routine—even if they are not intentional.

None of the points made here implies that the intellect has no role in the grounding of rational action. But that role need not fit an intellectualist model of grounding in *reasoning*, where we have an analogy between an intentional action so grounded and a believed or known conclusion arising from an argument instantiated in one's reasoning that leads to that conclusion. The practical role of the intellect need not even exhibit the action's being *directly* supported by reasons at all. And the role of the intellect may be as indirect as occurs where rational action (or at least a rational kind of doing) is based on information that, even if accessible to the agent by reflection, is not expressed in specific action-guiding propositions the agent believes or knows. Rational action may instead derive from such cues as perceived obstacles in one's path that, given the agent's overall know-how, guide action.

6. Intentionality, Knowledge, and Agency

What we have seen so far makes it quite plausible to hold that rational action need not be intentional.¹⁴ When rational, non-intentional action is evaluable in a way accidental doings are not (though they may, of course, also be negligent and evaluable in certain other ways appropriate to accidental doings). Rational non-intentional actions (or doings, at any rate) may be, for instance, voluntary in being fully under the control of the will, and they may be part of a behavioral pattern, such as hiking, that is intentional. Hiking, moreover, is *activity*, in a sense entailing constituent actions normally envisaged as parts of the behavior in question. Here it is useful to speak of what psychologists have called *scripts*: roughly, regularized ways of doing the things in question, normally acquired by rehearsal or training, as with playing a part in a drama or rendering well-memorized music. Although in principle scripts could be induced instantaneously by brain manipulation, they commonly arise by learning through multiple repetitions. Some activities, like some rehearsed behavior that is *scripted*, may be 'automatic' and still contrast with some instances of stepping over an obstacle; they may be deliberately done, as is possible in the unfamiliar hike portrayed earlier. There I knew how to hike but had no script for traversing the new pathway I was following.

The most plausible understanding of certain activities—those that are fully or partly scripted—is that the intention to engage in them has a rich content that encompasses a wide range of the constituent actions. These may be intentional while also being spontaneous and, as is often the case when they are cue-driven, automatic. Such actions (or at least doings) can be intentional and even rational without being either reasoned or indeed performed for any reason besides whatever set of reasons governs the entire activity. For much of what we know how to do, we have apparently internalized a kind of script. But this is not a condition for

¹⁴ Being non-intentional does not entail being unintentional, as shown by doing something knowingly and willingly but not intentionally, as in the nomination case. There is also no question that something one does unintentionally, such as leaving water running, can be *rational for one* even when not rationally performed. But I am not claiming (and doubt) that an act *unintentionally* performed can also be rational.

knowing *how*. Indeed, some scripts can doubtless be ‘written’ only after the fact. Some may also have such indexicals as occur in ‘Do it like *this*’, and those that are purely intellectual may be learnable without the agent’s at the time knowing how to do what they describe.

In the light of the considerations indicated in this section, we can see reason to resist a kind of intellectualism not so far directly addressed: a kind implying that acting requires knowledge. If the question concerns just the action-guiding knowledge operative in much of what we do, we have seen reason to doubt that all action is knowledge-based.¹⁵ Even instrumental knowledge does not seem necessary: instrumental beliefs can guide action without constituting knowledge. But we have not seen reason to give up the venerable view that action is in some way, even if indirectly, belief-guided. This holds even for scripted action once we allow for believing such propositions as that one simply *A*-s, where *A*-ing is sufficiently familiar, as in reciting a well-memorized poem. If intellectualism in the theory of action is too strong, an information-responsiveness view of action of the kind outlined here may still hold.

Knowledge *how* is another case in which, if cognitions with propositional content are needed, they need not constitute propositional knowledge. If you know how to swim, then normally you can simply swim when you want to (and have the means). A typical swimmer will undoubtedly have some propositional knowledge about how swimming is done, but it is not clear that having such knowledge is necessary for knowing how to swim. Someone who has just crossed the threshold of knowing how to swim might merely have evidence, rather than knowledge, about how swimming is done and may need more experience to *know* how it is done. Would swimming, in this threshold case, be an instance of *ability* to swim without knowing how, as is possible with a physically adept person who is able to saw a plank but does not know how and hence may, even after a first successful sawing, need instruction to pass from mere ability to know-how? The answer is not obvious. I suspect it is negative. Still, ability to *A* apparently does not in general require already knowing how to *A*. It is plausible to take the sawing case to illustrate this. The swimming case is more complicated and may be one in which crossing the threshold for knowing *how* may normally be reached only by practice. The agent may even then need reflection, repetition, or observation of more instances in order to achieve propositional knowledge about how it is done.

Abandoning the several intellectualist claims challenged in this paper need not lead to insufficiently appreciating the powers of intellect. For instance, far more complex activities than sawing a plank can be such that although an agent does not know how to engage in them, instruction can lead to immediate success in doing them. Some people can do complex puzzles given just one good clue. Facts

¹⁵ I leave aside the special case of agential self-knowledge. Here the most plausible intellectualist view is perhaps that for everything we do intentionally there is some description under which (at the time and given adequate conceptual resources) we know we are doing it. On the information-responsiveness view illustrated in parts of this paper, a preferable view would be that one need have only virtual knowledge here, in the sense that, on grounds that characteristically suffice for knowledge, one is disposed to believe one is doing the thing in question. In any case, knowledge that one is *A*-ing could be necessary for one’s doing this without being a *basis* of the action.

of this kind are perhaps one source of support for the idea that knowing how is (in principle) reducible to knowing that. Instructional learning of the right propositions can yield know-how. But from the possibility that knowledge *that*—say, knowing *that* of the kind testimony can provide—may *produce* knowing *how*, it certainly does not follow that every case of the latter is a case of or, especially, based on, knowing the propositions describing how the thing in question is done (or other nonindexical propositions). It is a contingent matter what information will lead a person to know how to do something or indeed to do it. My point here is that the concept of propositional knowledge about how a thing is done does not guarantee that having such knowledge yields the corresponding know-how, nor does the concept of know-how guarantee that those possessing it have the corresponding propositional knowledge.

7. Conclusion

I have sought both to clarify and to overcome a certain intellectualist picture of agency, one that (among other things) takes knowing *how* to be a case of knowing *that*, construes reasons for action as facts, requires the relevant facts to be *known* by agents who act rationally, takes practical reasoning to be good only if the reasoner *knows* the premises, tends to conceive intentional action inferentially, and encourages conceiving rational actions as necessarily intentional. The positive view partially sketched represents agency as both information-responsive and reasons-responsive—and indeed as appropriately governed by reason—without endorsing any of these intellectualist views. The examples provided in examining intellectualism indicate some ways in which information can guide action even if the information is not represented by knowledge, and in that way intellectually possessed. The examples also show some ways in which reasons can underlie action even if they are neither objects of knowledge nor components in inference as an intellectual process.

Agency is exercisable where information processing occurs without inference, and beliefs or cues can guide action without constituting knowledge. I have not implied, however, and do not believe, that knowledge regarding the kinds of actions and activities in question is not desirable and indeed more desirable than mere true belief with the same content. Nor have I implied that learning how to do many of the important things we do—in speaking, playing instruments, gaming, and hiking—does not normally require gaining propositional knowledge along the developmental route. Nonetheless, some propositional knowledge is like a ladder that, once climbed, we can do without.

If the cases examined in this paper are as representative as they seem, practical capacities are not reducible to theoretical capacities, nor does their exercise in what we know how to do automatically yield detailed comprehensive knowledge about how the things in question are done: the kind of knowledge we would express to someone we hope thereby to teach, by instruction as opposed to demonstration, how to do these things. The role of knowledge in action and reasoning may in some cases be minimal. Rational action, moreover, may have immensely wide scope,

extending to things we do, even intentionally, without dependence on practical reasoning. Rational action, we have seen, is at least typically a result, in part, of realizing or trying to realize intention. This makes understanding intention particularly important for understanding rational action. Intention may have wide scope—in principle, as wide a scope as is possible for the agent in relation to what kind of activity can become fully automatic and, in that sense, under the control of a single intention.

The examples explored require some qualifications of the belief-desire view of intentional action, which has too often been developed atomistically in relation to ‘single’ acts as opposed to activities, but (at least so far as this paper is concerned) we may resist concluding that no version of the belief-desire model of intentional action is sound. Maintaining the model, however, requires a wider conception at least of action, intention, and practical reasoning than has been traditionally dominant in the literature of action theory. Maintaining it also requires relinquishing at least some of the intellectualist views that, for many philosophers, seem required for understanding practical rationality. The broad idea of cognitive maps as crucial for navigating the world, however, is sustainable, and there is no need to deny that such maps are in certain ways better when their routes represent knowledge rather than even justified true cognitions that fall short of knowledge. Mapping is in a way prior to doing—at least prior to action aimed at destinations on the map. Without some kind of map, we do not know how to reach them. But this does not require that all the important guiding information on our maps be propositionally represented or constituted by propositional knowledge. This paper does nothing to weaken the idea that knowledge and truth represent sources of critical standards for the domain of action, but it does indicate a number of ways to understand the application of those standards to human agents without accepting intellectualism in the theory of action.

ROBERT AUDI

UNIVERSITY OF NOTRE DAME

Robert.audi.1@nd.edu

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